5/21/07

ALTERNATIVE TO PTO/SB/08A/B (Based on PTO 04-07 version)

4.40/070				Complete if Known		
Sub	stitute for form 1449/PTO			Application Number	10/591,471	
INFORMATION DISCLOSURE				Filing Date	September 1, 2006	
	Tatement e			First Named Inventor	Katsumi Furuya	
		<i>2</i> U <i>C</i>		Art Unit	NHA- 1874	
	(Use as many she	eets as	necessary)	Examiner Name	Not-Yet Assigned Leurs	
Sheet	1	of	3	Attorney Docket Number	HZA-0003	

			U.S. PATE	ENT DOCUMENTS	
Examiner Initials*	Cite No.	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where
		Number-Kind Code ² (# known)	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear

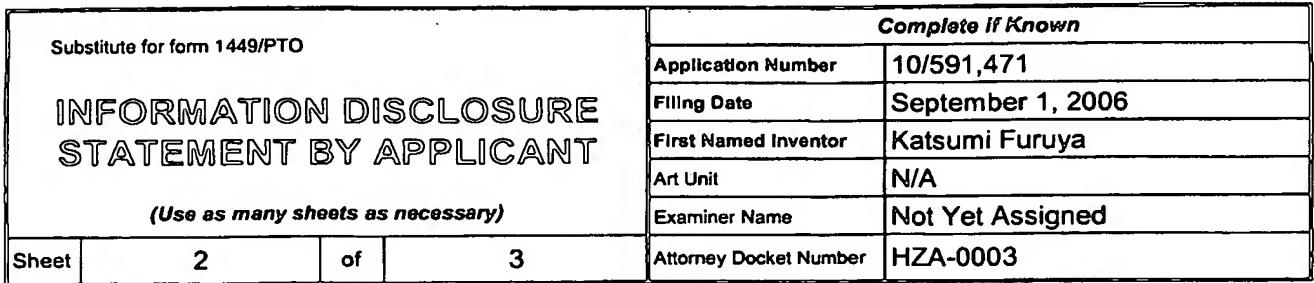
FOREIGN PATENT DOCUMENTS							
Examiner Initials*		Cita	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	
		Cite No.1	Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				⊤ °
/QL	_/_	BA	JP-2004-045709-A	02-12-2004	NEC Corp. et al.		
		BB	JP-2004-004419-A	01-08-2004	Japan Science & Technology Corp.		
		вс	JP-2003-215367-A	07-30-2003	Mitsubishi Electric Corp.		
		BD	JP-2003-156642-A	05-30-2003	NTT Corp.		
		BE	JP-2003-043273-A	02-13-2003	Hitachi Cable Ltd		3
		BF	JP-2002-303836-A	10-18-2002	NEC Corp		
		BG	JP-2002-277659-A	09-25-2002	NTT Corp.		3
		вн	JP-2002-196296-A	07-12-2002	Mitsubishi Electric Corp		3
		ВІ	JP-2002-169048-A	06-14-2002	NEC Corp Autocloning Technology KK		E
		BJ	JP-2001-249235-A	09-14-2001	NTT Corp.		3
		вк	JP-2001-281480-A	10-10-2001	NEC Corp.		3
		BL	JP-2001-072414-A	03-21-2001	Japan Science & Technology Corp		
	,	BM	JP-2001-518707-A	10-16-2001	SIEMENS Aktiengesellschaft	not provided	3
	//	BN	WO-99/17349-A	04-08-1999	SIEMENS Aktiengesellschaft		3

*EXAMINER: Initial If information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
/QL/ CA		A. Martinez, et al., "Ultrashort 2-D Photonic Crystal Directional Couplers", IEEE Photonics Technology Letters, Vol. 15, No. 5 pp. 694-696 (05/2003)	
	СВ	Morten Thorhauge, et al., "Efficient photonic crystal directional couplers", Optics Letters, Vol. 28, No. 17, pp. 1525-1527 (09/01/2003)	
	CC	Katsumi Furuya et al., "Design of small optical switch with 4-port directional coupler in two-dimensional photonic crystal slab", Photonic Reseach Institute, National Institute of Advanced Industrial Science and Technology (AIST), p. 203	
	CD	Katsumi Furuya et al., "Theoretical study for shortening optical switch with 4-port directional coupler in 2-D photonic crystal slab", The 51st Japan Society of Applied Physics Academic Lecture Materials, p.1165, (03/2004)	
W	CE	Noritsugu Yamamoto et al., "Photonic crystal waveguide directional coupler with short coupling	

-			A TAX TAX TAX TAX
Examiner	Duyon Lounal	Date	01/01/2008
	/Quyen Leung/	1	0110112000
Signature		Considered	_ <u>/</u>
 			





/QI	L/	length and high extinction ratio", The Institute of Electronics, Information and Communication Engineers, Technical Report of IEICE, pp. 67-70 (07/2004)	
	CF	Stefano Boscolo et al., "Coupling and Decoupling of Electromagnetic Waves in Parallel 2-D Photonic Crystal Waveguides", IEEE Journal of Quantum Electronics Vol. 38, No.1, pp. 47-53, (01/2002)	
	CG	M. Tokushima et al., "Photonic crystal line defect waveguide directional coupler", Electronics Letters, Vol. 37, No. 24, pp. 1454-1455 (11/2001)	
	СН	J. Zimmermann et al, "Photonic crystal waveguide directional couplers as wavelength selective optical filters", Optics Communications 230, pp. 387-392 (02/2004)	·
	СІ	"Recent progress and future prospects of photonic crystal research - Revised Edition - Toward a technology roadmap (Photonic crystal breakthrough technology forum)", Optoelectronic industry and Technology Development Association, 14-013-1, pp. 34-36 (03/2002)	
	Cl	H. Yamada, "Theoretical analysis of photonic crystal directional coupler based optical switches", Institute of Electronics, Information and Communication Engineers Electronics Society Conference, C-4-7, pp249 (2002).	
	СК	K. Tajima, "All-Optical Switch with Switch-Off Time Unrestricted by Carrier Lifetime", Jpn. J. Appl. Phys. Vol. 32 Part 2 No. 12A, pp. L1746-L1749 (12/01/1993).	
	CL	K. Kishioka, "Characteristics of the Optical Resonator Composed of the Nonlinear Directional Coupler", IEEJ Trans. FM., Vol.123, No.12 (2003).	
	CM	M. Tokushima et al., "Photonic crystal line defect waveguide directional coupler", Electronics Letters, Vol.37, No.24, pp. 1454-1455 (11/22/2001).	
	CN	H. Benisty et al., "Models and Measurements for the Transmission of Submicron-Width Waveguide Bends Defined in Two-Dimensional Photonic Crystals", IEEE Journal of Quantum Electronics, Vol.38, No.7, pp.770-785 (07/2002).	
	СО	J. Moosburger et al., "Enhanced transmission through photonic-crystal based bent waveguides by bend of engineering", Applied Physics Letters, Vol. 79, No.22, pp. 3579-3581 (11/26/2001).	
	СР	A. Talneau et al., "Photonic-crystal ultrashort bends with improved transmission and low reflection at 1.55µm", Applied Physics Letters, Vol. 80, No.4, pp. 547-549 (01/28/2002)	
	CQ	Noritsugu Yamamoto et al., "Photonic crystal directional coupler with short coupling length and high extinction ratio", The 65th Japan Society of Applied Physics Academic Lecture Materials, p.936, Tohoku Gakuin University (09/2004)	
	CR	Toru Ogawa et al., "Photonic crystal directional coupler switch with short switching length and wide band width", The 65th Japan Society of Applied Physics Academic Lecture Materials, p.936, Tohoku Gakuin University (09/2004)	
	cs	Daisuke Mori et al., "Dispersion-Controlled Group Delay Device by Index-Chirped Photonic Crystal Waveguide Directional Coupler", The 51st Japan Society of Applied Physics Academic Lecture Materials, p.1147, Tohoku Gakuin University (03/2004)	
	СТ	International Preliminary Report mailed on December 7, 2006.	
	CU	International Search Report mailed on July 5, 2005.	
	CV	International Preliminary Report mailed on September 14, 2006.	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

			A
Examiner	10	Date	01/01/2008
	/Quyen Leung/		01/01/2000
Signature	reduyon Loungs	Considered	

provided

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.